



Dart Aerospace Ltd.
1270 Aberdeen St
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Tel (613) 632-5200
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D2574
Job Sheet 184839



Part No: D2574

Job Qty: 12 ea

Part Name: Saddle, Aft, In



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/17/18

Job Tracking No:

Due Date: 11/9/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV F IPP Rev: I As Per RevE 06-01-27 JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	12 Ea	11/9/18	11/9/18	0.00	0.00	Start Up Machining		SBL/
100	CNC Vertical Machining	12 pcs	11/9/18	11/9/18	1.21	18.75	HAAS 1		SBL/
110	Mill Conv	12 pcs	11/9/18	11/9/18	0.00	1.50	Mill Conv 1		SBL/
120	QC	12 pcs	11/9/18	11/9/18	0.00	0.00	QC2		SBL/
130	QC	12 pcs	11/9/18	11/9/18	0.00	0.00	QC8		SBL/
140	HandFinish	12 pcs	11/9/18	11/9/18	0.00	0.48	HandFinish1		DR 18/11/20
150	Powdercoat	12 pcs	11/9/18	11/9/18	0.00	0.39	Powdercoat1		DR 18-12-31
160	QC	12 pcs	11/9/18	11/9/18	0.00	0.00	QC3		DR 18-12-31
170	Packaging	12 pcs	11/9/18	11/9/18	0.00	0.00	Packaging3	JK396	DR 18-12-31
180	QC21-SA	12 Ea	11/9/18	11/9/18	0.00	0.00	QC21		DR 18-12-31

Part Op 100 - Program Batch No. _____ 1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets
Descriptions: 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets

110 - Machine keyway as per dwg D2573 & D2574

113895/ 150 - START TIME: 8:35 FINISH TIME: 9:05 TEMP: 320°

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-005	Saddle Billet	12 Ea (1 ea)	90-Start up Operation	3x 5069067 9x 5066579

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6101-005	12	30	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Saddle, Aft Inboard	0.438Inches	+ 0.005 - 0.000	0.443 0.438	
2	Saddle, Aft Inboard	1.745Inches	+ 0.010 - 0.000	1.755 1.745	
3	Saddle, Aft Inboard	3.495Inches	+ 0.010 - 0.000	3.505 3.495	
4	Saddle, Aft Inboard	1.745Inches		1.755	



DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS											
Part No. _____		Rework ☐		Skid-tube ☐		Cross tube ☐		Water Jet ☐		Engineering ☐					
NCR No. _____		Scrap ☐		Machining ☐		Small Fab ☐		Prod. Eng. Coord. ☐		Quality ☐					
		Use-as-is ☐		Thermoforming ☐		Finishing ☐		Rec/Store/Packaging ☐		Other ☐					
		Suspected Unapproved ☐		Large Fab ☐		Composite ☐		Supplier ☐							
Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval							
Description Work Order Deviation				Disposition				Completed By							
								Lead hand / Supervisor Approval Verification							
								QC / QA Coordinator Approval							
Root Cause				FAULT CATEGORY											
Environment ☐				Pressure/Forced ☐				Temperature/Cure ☐				Power Loss/Surge ☐			
Design ☐				Bending ☐				Set-up ☐				Folio/Program ☐			
Doc/Data ☐				Centre Not Concentric ☐				BOM/Route ☐				Grain ☐			
Equip/Tooling ☐				Cracks ☐				Broken/Damage/Defect ☐				Weld ☐			
Handling/Pre ☐				Crimp/Kink/Ripple/Wave ☐				Inspection Incomplete/Unqualified ☐				Wrong Stock Pulled ☐			
Material ☐				Cuffs ☐				Contamination ☐				Out of Sequence ☐			
Internal Transport ☐				Crushing ☐				Countersink ☐				Off-set ☐			
Tribal Knowledge ☐				Heat Treat ☐				Cut Too Short ☐				Mislabeled ☐			
LOA ☐				Wave/Twist in Tube ☐				Instructions Incomplete/Unclear ☐				Fit/Function ☐			
Substation ☐				Marks/Chatter ☐				Drill Holes ☐				Misaligned/off center ☐			
Past Expiry Date ☐												Turning Sequence ☐			
Misidentified ☐															
No Re-verification ☐															
Operator ☐															
Offset/Setup ☐															
Supplier ☐															
Training ☐															
Use for Testing ☐															
Poor Information ☐															
Rushing ☐															
Product Improvement ☐															
Process Improvement ☐															
Manufacturing Process ☐															
Past Due ☐															
OTHER : _____															

			+ 0.010	1.745
			- 0.000	
5	Saddle, Aft Inboard	7.990Inches	+ 0.020	8.010
			- 0.000	7.990
6	Saddle, Aft Inboard	0.490Inches	+ 0.020	0.510
			- 0.000	0.490
7	Saddle, Aft Inboard	0.257Inches	+ 0.005	0.262
			- 0.000	0.257
8	Saddle, Aft Inboard	0.375Inches	+ 0.005	0.380
			- 0.000	0.375
9	Saddle, Aft Inboard	0.490Inches	+ 0.020	0.510
			- 0.000	0.490
10	Saddle, Aft Inboard	1.174Inches	+ 0.010	1.184
			- 0.000	1.174
11	Saddle, Aft Inboard	0.558Inches	+ 0.020	0.578
			- 0.000	0.558
12	Saddle, Aft Inboard	1.174Inches	+ 0.010	1.184
			- 0.000	1.174
13	Saddle, Aft Inboard	1.365Inches	+ 0.010	1.375
			- 0.000	1.365
14	Saddle, Aft Inboard	2.495Inches	+ 0.010	2.505
			- 0.000	2.495
15	Saddle, Aft Inboard	4.119Inches	+ 0.010	4.129
			- 0.000	4.119
16	Saddle, Aft Inboard	0.115Inches	+ 0.020	0.135
			- 0.000	0.115
17	Saddle, Aft Inboard	0.115Inches	+ 0.020	0.135
			- 0.000	0.115
18	Saddle, Aft Inboard	0.240Inches	+ 0.020	0.260
			- 0.000	0.240
19	Saddle, Aft Inboard	0.115Inches	+ 0.020	0.135
			- 0.000	0.115
20	Saddle, Aft Inboard	0.178Inches	+ 0.020	0.198
			- 0.000	0.178
21	Saddle, Aft Inboard	3.210Inches	+ 0.040	3.250
			- 0.000	3.210
22	Saddle, Aft Inboard	0.230Inches	+ 0.020	0.250
			- 0.000	0.230
23	Saddle, Aft Inboard	0.115Inches	+ 0.020	0.135
			- 0.000	0.115
24	Saddle, Aft Inboard	0.307Inches	+ 0.005	0.312
			- 0.000	0.307
25	Saddle, Aft Inboard	0.760Inches	+ 0.005	0.765
			- 0.000	0.760
26	Saddle, Aft Inboard	0.352Inches	+ 0.020	0.372
			- 0.000	0.352
27	Saddle, Aft Inboard	0.470Inches	+ 0.060	0.530
			- 0.000	0.470
28	Saddle, Aft Inboard	0.615Inches	+ 0.020	0.635
			- 0.000	0.615
29	Saddle, Aft Inboard	0.053Inches	+ 0.020	0.073
			- 0.000	0.053
30	Saddle, Aft Inboard	0.240Inches	+ 0.020	0.260
			- 0.000	0.240
31	Saddle, Aft Inboard	1.500Inches	+ 0.020	1.520
			- 0.000	1.500
32	Saddle, Aft Inboard	0.115Inches	+ 0.020	0.135
			- 0.000	0.115
33	Saddle, Aft Inboard	0.240Inches	+ 0.040	0.280
			- 0.000	0.240
34	Saddle, Aft Inboard	0.240Inches	+ 0.020	0.260
			- 0.000	0.240
35	Saddle, Aft Inboard	2.000Inches	+ 0.020	2.020
			- 0.000	2.000
36	Saddle, Aft Inboard	0.023Inches	+ 0.020	0.043
			- 0.000	0.023

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			

Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
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Description Work Order Deviation	Disposition	Completed By
		Lead hand / Supervisor Approval Verification
		QC / QA Coordinator Approval

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐



Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
	Rework ☐	Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	

Date : _____	Step #: _____	QTY Effective : _____	MRB (QSI042) Approval ☐
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Description Work Order Deviation	Disposition	Completed By
		Lead hand / Supervisor Approval Verification ☐
		QC / QA Coordinator Approval ☐

FAULT CATEGORY		
re ☐	Power Loss/Surge ☐	Positioned Wrong ☐
/Defect ☐	Folio/Program ☐	Outside Dimensions ☐
plete/Unqualified ☐	Grain ☐	Over/Under tolerance ☐
	Weld ☐	Part Incorrect ☐
	Wrong Stock Pulled ☐	Part Lost/Missing ☐
	Out of Sequence ☐	Part Moved ☐
	Off-set ☐	Drawing ☐
	Mislabeled ☐	Finish ☐
plete/Unclear ☐	Fit/Function ☐	Misread ☐
	Misaligned/off center ☐	Turning Sequence ☐

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Container No: S126430



Part: D2574

Job No: 184839

Serial No/Batch: S126430

Revision: Rev.F

Inspector:

Exp Date:

Instructions: D2574 Rev C, sheets 1-3 Date: 11/09/18

DART AEROSPACE LTD		Work Order: 184 839
Description: Saddle, Aft Inboard		Part Number: D2574
Inspection Dwg: D2574 Rev. F		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.438	0.443		438	438	438	438		
B	1.745	1.755		1750	1750	1750	1750		
C	3.495	3.505		3500	3500	3500	3500		
D	1.745	1.755		1750	1750	1750	1750		
E	7.990	8.010		8000	8000	8000	8000		
F	0.490	0.510		498	500	498	499		
G	0.257	0.262		257	257	257	257		
H	0.375	0.380		375	375	375	375		
I	0.490	0.510		499	499	499	500		
J	1.174	1.184		1179	1179	1179	1179		
K	0.558	0.578		565	567	566	567		
L	1.174	1.184		1179	1179	1179	1179		
M	1.365	1.375		1370	1370	1370	1370		
N	2.495	2.505		2500	2500	2500	2500		
O	4.119	4.129		4124	4124	4124	4124		
P	0.115	0.135		133	135	130	135		
Q	0.115	0.135		128	128	127	128		
R	0.240	0.260		255	253	252	255		
S	0.115	0.135		126	126	127	125		
T	0.178	0.198		188	188	188	188		
U	3.210	3.250		3230	3230	3230	3230		
V	0.230	0.250		242	243	243	243		
W	0.115	0.135		131	127	128	130		
X	0.307	0.312		310	310	310	312		
Y	0.760	0.765		760	760	760	760		
Z	0.352	0.372		366	363	364	364		
AA	0.470	0.530		500	500	500	500		
AB	0.615	0.635		622	625	622	623		
AC	0.053	0.073		058	060	060	056		
AD	0.240	0.260		253	253	253	253		
AE	1.500	1.520		1510	1510	1510	1510		
AF	0.115	0.135		132	130	130	130		
AG	0.240	0.280		255	260	256	256		
AH	0.240	0.260		250	247	248	247		
AI	2.000	2.020		2000	2000	2000	2000		
AJ	0.023	0.043		033	033	033	033		

Accept/Reject

Measured by: DAS	Audited by: mm
Date: 57 18/11/11	Date: 18/11/12
9-89	

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	

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DART AEROSPACE LTD		Work Order: 184 839	
Description: Saddle, Aft Inboard		Part Number: D2574	
Inspection Dwg: D2574 Rev. F		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	5 #	6 #	7 #	8 #		
A	0.438	0.443		0.438	0.438	0.438	0.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.7500	1.7500	1.750		
E	7.990	8.010		8.000	8.0005	8.000	8.000		
F	0.490	0.510		0.500	0.500	0.500	0.5005		
G	0.257	0.262		0.257	0.257	0.257	0.257		
H	0.375	0.380		0.375	0.375	0.375	0.375		
I	0.490	0.510		0.500	0.501	0.500	0.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.568	0.568	0.568	0.5675		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.135	0.135	0.135	0.130		
Q	0.115	0.135		0.127	0.128	0.127	0.128		
R	0.240	0.260		0.254	0.254	0.254	0.255		
S	0.115	0.135		0.126	0.127	0.127	0.127		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.230	3.230	3.230	3.230		
V	0.230	0.250		0.243	0.245	0.245	0.247		
W	0.115	0.135		0.128	0.128	0.128	0.123		
X	0.307	0.312		0.312	0.312	0.313	0.313		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.364	0.364	0.364	0.364		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.622	0.621	0.621	0.621		
AC	0.053	0.073		0.060	0.062	0.060	0.060		
AD	0.240	0.260		0.254	0.254	0.254	0.254		
AE	1.500	1.520		1.510	1.510	1.510	1.510		
AF	0.115	0.135		0.135	0.135	0.135	0.135		
AG	0.240	0.280		0.262	0.265	0.260	0.260		
AH	0.240	0.260		0.248	0.248	0.248	0.248		
AI	2.000	2.020		2.010	2.010	2.010	2.010		
AJ	0.023	0.043		0.033	0.033	0.033	0.033		
Accept/Reject									

Measured by:	DAS
Date:	9.89 18/11/11

Audited by:	mmL
Date:	18/11/14

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	

DART AEROSPACE LTD	Work Order: 184 839
Description: Saddle, Aft Inboard	Part Number: D2574
Inspection Dwg: D2574 Rev. F	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	9 1	10 2	11 3	12 4		
A	0.438	0.443		0.438	0.438	0.438	0.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		7.995	8.000	8.000	8.000		
F	0.490	0.510		0.499	0.501	0.501	0.501		
G	0.257	0.262		0.257	0.257	0.257	0.257		
H	0.375	0.380		0.375	0.375	0.375	0.375		
I	0.490	0.510		0.499	0.5025	0.501	0.501		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.5685	0.5695	0.568	0.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.130	0.130	0.130	0.130		
Q	0.115	0.135		0.128	0.132	0.130	0.130		
R	0.240	0.260		0.254	0.254	0.252	0.253		
S	0.115	0.135		0.128	0.129	0.130	0.129		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.230	3.230	3.230	3.230		
V	0.230	0.250		0.244	0.245	0.245	0.243		
W	0.115	0.135		0.120	0.117	0.117	0.118		
X	0.307	0.312		0.312	0.312	0.312	0.312		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.364	0.364	0.364	0.364		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.622	0.623	0.622	0.623		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.255	0.255	0.256	0.255		
AE	1.500	1.520		1.510	1.510	1.510	1.510		
AF	0.115	0.135		0.130	0.130	0.130	0.130		
AG	0.240	0.280		0.250	0.250	0.250	0.250		
AH	0.240	0.260		0.250	0.250	0.250	0.250		
AI	2.000	2.020		2.010	2.010	2.010	2.010		
AJ	0.023	0.043		0.033	0.033	0.033	0.033		
Accept/Reject									

Measured by: DAS
Date: 57 18/11/11

Audited by: mm
Date: 18/11/14

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	

